**VT Center for Geographic Information** 

# Vermont Protected Lands Geospatial Data Standard

**Version 1.3** 

# **Updates**

Date	Notes
October 2015	v. 1.0 Initial Draft
September 2015	v. 1.1 Changes based on input from contributing partners
March 2015	v. 1.2 Changes based on input from contributing partners
November 9, 2016	v. 1.3 Final posted version approved by EGC

# **Acknowledgements**

This data standard was derived primarily from the coding scheme of the Vermont Conserved Lands Database project. The VCLD project was managed for many years by the Spatial Analysis Laboratory at the University of Vermont. Please see the Introduction to this standard below for more details about that project and the partners involved. This first version of the Protected Lands Geospatial Data Standard was drafted by VCGI staff following meetings of the contributing partners identified below:

Jon Osborne, VT Land Trust
Chris Moore, VT Land Trust
Dan Farrell, The Nature Conservancy
Sean McFaden, The UVM Spatial Analysis Lab
Diane Burbank, Green Mountain National Forest
Thomas Tenyah, Green Mountain National Forest
Kris Hammer, VT Housing and Conservation Board
Ryan Knox, VT Agency of Natural Resources
Reed Sims, USDA Natural Resources Conservation Service
Mike Brouillette, VCGI

These individuals volunteered their time to hammer out a new Protected Lands data scheme as a first step towards instituting a new data update protocol for this data layer. Their tenacity, generosity, and thoughtful participation was essential, and much appreciated!

# Statutory Authority and Standard Review/Approval

The Vermont Center for Geographic Information (VCGI) has the statutory authority<sup>1</sup> to craft and adopt VT GIS standards and guidelines. Over the past 20 years, VCGI has worked with the VT GIS community to carefully craft these standards and guidelines, helping to ensure that Vermont GIS (VGIS) data "is compatible with, useful to" others in the VT GIS community.

In 2015, VCGI was reformed as a Division under the Agency of Commerce and Community Development (ACCD) as defined in H.885 Sec. E. 800.1 10 V.S.A. § 122. VCGI's duties did not change, and therefore VCGI still has the authority to adopt VT GIS standards and guidelines.

The State's Enterprise GIS Consortium (EGC) has been established as the organization responsible for reviewing and approving Vermont GIS standards crafted by VCGI (in collaboration with the Vermont GIS Community).

## Introduction

Property ownership is commonly considered to consist of a "bundle of rights" that define the social relationships between people in relation to that property. Conservation in this context involves selling, giving away or in some way limiting the expression of some of those rights. The Vermont Protected Lands Database contains lands that have some level of protection against permanent conversion to developed land uses. This protection is afforded by a wide range of landowner types and conservation measures but can be generalized into three primary categories: 1) public ownership by a government agency or entity committed to natural resources protection (e.g., national forests, state parks, town forests); 2) private ownership by a conservation organization (e.g., The Nature Conservancy); and 3) conservation easements on privately-owned lands (e.g., Vermont Land Trust easements on working farmland and forests). The first two categories focus on direct ownership of land (i.e., fee ownership) while the third focuses on transfer of a property's development rights to a third-party entity (e.g., a land trust) that will theoretically hold these rights in perpetuity. Other protection measures include deed restrictions and covenants. It is important to keep in mind that conservation does not imply public access.

The Vermont Protected Lands Database (VPLD) is based on the original Conserved Lands Database (CLD) project of the University of Vermont Spatial Analysis Lab and cooperating organizations including The Vermont Land Trust, The Nature Conservancy, the Vermont Housing and Conservation Board, the Vermont Agency of Natural Resources, and regional planning commissions throughout the state. The new VPLD coding

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<sup>&</sup>lt;sup>1</sup> http://legislature.vermont.gov/statutes/fullchapter/10/008

scheme is based on a combination of the CLD and New Hampshire's GRANIT (Geographically Referenced Analysis & Information Transfer System) database of New Hampshire Conservation Lands.

This standard includes an updated version of the Coding Scheme reflecting decisions made by the Protected Lands Database Work Group during an effort to plan for a sustainable update process for this important geospatial data layer. VCGI has agreed to coordinate a somewhat distributed data maintenance and compilation effort once updates adhere to this data standard.

#### What is Included in this Database

The Vermont Protected Lands Database includes land parcels that are expected to remain protected from land conversion or development. With the exception of state-owned boat and fishing access areas, the minimum size for inclusion in the CLD is two acres. Protection mechanisms range from fee-simple public ownership of lands managed to maintain natural resource features, private fee ownership with publicly owned easements, and private ownership with easements privately owned by conservation organizations, to fee-simple ownership by private conservation organizations. The information below provides a bit more detail about the types of conservation commonly used.

- Public lands held by agencies with conservation or natural resource oriented missions. Public lands are not normally legally protected from sale, swap or conversion, but the likelihood of such disposition is low. Often, however, public lands are encumbered by private and/or public conservation easements or other conservation restrictions, as well.
- Municipal natural resource holdings. These may include town forests, fire district lands, watershed areas, and school wood lots having limited conversion threats and high ownership stability, although they may not be encumbered with legal protection mechanisms.
- Public boating and fishing access areas. Although these areas are often small and no longer contain natural cover, they provide important public access to natural resource features of adjacent lands and waters in the state, and are therefore included in the CLD. Most often these are owned in fee by the state and administered by the Agency of Natural Resources. Others may be municipally or federally owned, or public access may be encumbered on a private land parcel by easement.
- Public and private educational institution holdings with natural resource uses and protections. Examples include University of Vermont School of Natural Resources research forests and natural areas, Johnson State College woodlands, and Yale University School of Forestry lands.
- Publicly owned rights on private lands. These may include Agency of Natural Resources hunting rights, public access rights, and Forest Legacy conservation easements.
- Parcels owned in fee by nonprofit organizations dedicated to conserving land or resources. Although not necessarily legally protected from conversion, developing these holdings would breach organizational mission statements and/or nonprofit tax status.

• Private parcels with conservation easements held by nonprofit organizations. These include easements on agricultural lands, woodlands, or other "open lands." Note that many agricultural conservation easements protect against residential subdivision, but landowners may retain limited building and subdivision rights on their protected lands. Furthermore, farmers on such protected lands often are required to follow forest management plans but may be permitted to clear cut areas to reclaim additional pasture or cropland.

# **Purpose**

- 1. Define attributes and acceptable attribute values for a geospatial database identifying protected land in Vermont.
- 2. Define data format and structure for the Protected Lands Database
- 3. Define Metadata requirements for the Protected Lands Database
- 4. Provide procedures for submitting new or updated Protected Lands Geospatial Data to VCGI, so that the data can be included in the next update to the Protected Lands Database.
- 5. Define the intended time frame for updates to the Protected Lands Database

# **Applicability**

Compliance with this standard is recommended for any municipal, regional, state, federal, or nonprofit data creator who creates or updates geospatial data describing protected land. This requirement will not usually be burdensome for most data partners, as digital geospatial data developed by those experienced in the issues of GIS data and application development would comply with most, if not all, of the requirements as a matter of good professional practice. Any state agency that supplies funds to organizations or regional planning agencies to develop or update Protected Land's geospatial data should require that this standard be used.

There is no intent to provide a standard for developing the authoritative definition of property boundaries or to specify limits for legal boundary determination or property conveyance purposes. Matters related to those more definitive interests remain the purview of the professional title attorney and/or licensed land surveyor.

# **Protected Lands Geospatial Data Standard Requirements**

**Templates are Available:** VCGI provides metadata and geodatabase templates that can help in the conversion to or creation of data that meets this Data Standard: <a href="http://vcgi.vermont.gov">http://vcgi.vermont.gov</a> or email: <a href="mailto:accd.vcgiinfo@vermont.gov">accd.vcgiinfo@vermont.gov</a>

Minimum Deliverables: GIS data and metadata having the characteristics described below.

Coordinate System and Datum: Vermont State Plane Meters, NAD 83 (National Spatial Reference System (NSRS) or most current).

#### Characteristics, Features, and Format:

- Deliverable shall consist of one ESRI File Geodatabase (FGDB) in version 10.1 format. It shall contain all Protected Lands features maintained by that data partner (and any other partners whose data they have incorporated under agreement).
- Data partners must use the Protected Lands FGDB template provided by VCGI.
- Geodatabases shall use the following naming conventions:
  - o FGDB: PROTECTEDLND\_<ORGANIZATION>\_<YEAR>.gdb (e.g. PROTECTEDLND\_VLT\_2016.gdb)
  - o Feature Dataset: CadastralConserved PROTECTEDLND
  - Feature Class: Cadastral\_PROTECTEDLND\_poly

**Attributes:** All features shall have the following attributes at a minimum. Values refers to the actual number, code or characters that will appear in the attribute table for each feature. See more in-depth description of each attribute's values in the section below the overview table. NOTE: Domain tables detailed in *Appendix A: Domain Table Attribute Description*.

Table 1: Attribute Definitions for Cadastral_PROTECTEDLND_poly				
Field Name	Values	Description	Text/Short	Field Size
POLYID	POLYgon IDentifier Code	Unique number assigned by VCGI or Data Partner	Text	15

Table 1: Attribute Definitions for Cadastral_PROTECTEDLND_poly				
Field Name	Values	Description	Text/Short	Field Size
NAME	Project Name	For public lands, NAME is equivalent to the name of the public project (e.g., Green River Reservoir State Park, Bradford Town Forest, West Hill Pond Access Area). For private lands, NAME is equivalent to the protecting entity (e.g., The Nature Conservancy, Vermont Land Trust, McConnell Pond Conservation Fund).	Text	50
PTYPE1	See "PROTECTEDLND_PTYPE" Domain Table	Primary Protection TYPE codes assigned based on the legal restrictions and/or ownerships associated with each polygon of a protected project.	Text	5
PTYPE2-5	See "PROTECTEDLND_PTYPE" Domain Table	Complementary field to be used after Primary Protection TYPE is assigned to the polygon. PTYPE2-5 codes reflect the legal restrictions and/or ownerships associated with each polygon of a protected project. Specifically designed to allow listing of all fee owners, easement co-holders, and reverter clause beneficiaries of a property.	Text	5
PAGENCY1	See "PROTECTEDLND_PAGENCY" Domain Table	Primary Protecting AGENCY or organization responsible for protection of the parcel.	Text	6
PAGENCY2-3	See 'PROTECTEDLND_PAGENCY" Domain Table	Secondary and tertiary protecting agencies.	Text	6
GISACRES		Area of polygons calculated in ArcGIS or other GIS program and converted to acres.	Numeric	10 (2 decimals)
SRCORG	See "PROTECTEDLND_SRCORG"  Domain Table	Organization contributing features	Text	6

Table 1: Attribute Definitions for Cadastral_PROTECTEDLND_poly				
Field Name	Values	Description	Text/Short	Field Size
SOURCE	See "PROTECTEDLND_SOURCE" Domain Table	Sources of geospatial information comprising each polygon	Text	4
SRCNOTES		Used to clarify details about source data.	Text	80
STEWARD	See "PROTECTEDLND_PAGENCY" Domain Table	Data manager of feature, can be different than primary protecting agency.	Text	6
DATEAQRD	DATE	The date that all parties signed (closing). NOT date it was recorded at town. Closest to actual date or 0101YYYY if actual date not known.	Date format	8
NOTES		Used to note problem polygons, specific site names, etc.	Text	80
GAPSTATUS	See "PROTECTEDLND_GAPSTATUS" Domain Table	Protection level.	Text	2
DESIGNAT	See "PROTECTEDLND_DESIGNAT" Domain Table	Description of the property related to its use or function	Text	4
PUBACCESS	See "PROTECTEDLND_PUBACCESS" Domain Table	Allows the cartographer to distinguish Public Ownership from Private Ownership to help protect the rights of private landowners.	Short Integer	1
PANOTES		Notes field regarding public access clarifications and restrictions	Text	80
UPDACTION	See Domain "PROTECTEDLND_UPDACTION" Table	Type of update made to polygon (e.g.: Added, Moved, Split, etc.).	Text	1
UPDDATE		Date of UPDACTION	Date	8

Table 1: Attribute Definitions for Cadastral_PROTECTEDLND_poly				
Field Name	Values	Description	Text/Short	Field Size
UPDNOTES		Update notes	Text	254

**Metadata Required:** the format shall meet the Content Standard for Digital Geospatial Metadata (CSDGM): http://www.fgdc.gov/metadata/geospatial-metadata-standards#csdgm and shall be provided in digital format.

# **Detailed Descriptions of Attributes and Values**

#### **POLYID**

Each polygon in the database representing a protected land parcel has a unique POLYID. In 2014 or 2015, a new POLYID was assigned for each feature, and thereafter new POLYID's were assigned sequentially by the VCGI data manager.

#### **NAME**

For public lands, NAME is equivalent to the name of the public project (e.g., Green River Reservoir State Park, Bradford Town Forest, West Hill Pond Access Area). For private lands, NAME is equivalent to the protecting entity (e.g., The Nature Conservancy, Vermont Land Trust, McConnell Pond Conservation Fund). Names of private landowners (as in the case of many conservation easements) are not indicated in the database.

#### PTYPE1

Primary Protection TYPE codes assigned based on the legal restrictions and/or ownerships associated with each polygon of a protected project. The PTYPE1 field is intended to reflect legally mandated restrictions on the property. Protecting agency records and deeds should be consulted for specific details. The PTYPE1 code normally reflects the most restrictive protection mechanism. In the case of public parcels, PTYPE1 reflects the primary public protection mechanism, even where a private mechanism may be more restrictive. Other restriction mechanisms are indicated by the PTYPE2-5 attributes.

PTYP	Έ	PTYPE_DESC
01		Fee Ownership
02	2	Fee Ownership Except Timber Rights
	02.1	Fee Ownership Except Lifetime Wood Rights
03	3	Fee Ownership Except mineral rights
04	1	Fee Ownership Except Oil Rights
05	5	
06	5	Fee Ownership Except Hunting Rights
07	7	
08	3	
09	)	Fee Ownership Except Multiple Rights
10		Conservation Easement (general)
11	L	Trail easement
	11.	1 Winter Trail Easement
12	2	Historical Preservation Easement
13	3	Scenic Easement
14	1	Flowage Easement
15	5	Rails to Trails Easement
16	5	Ecological Protection Zone
17	7	River Corridor
	17.1	Stream Bank
18	3	Agricultural Easement

	19	Hunting Rights Conservation Easement
20		Deed Restrictions (General)
	21	Agricultural Preservation Deed Restrictions
	22	Archeological Preservation Deed Restrictions
	23	Set Aside area of Development Deed Restriction
	24	Flowage Deed Restrictions
	25	Act 250 Deed Restrictions
	26	Conservation Deed Restrictions
	27	Recreation easement
	28	
	29	
30		Reverter
	31	Management Agreement
	32	State of Vermont 'Natural Area' Designation
	33	Executory Interest
	34	Remainder Interest
	35	Lease
	36	
	37	Covenant
		37.1 No Development Zone within Covenant
	38	Parcel to be conveyed to other entity
	39	
		39.1 No Development Zone within Easement

#### PTYPE2-5

Complementary field to be used after PTYPE1 is assigned to the polygon. PTYPE2-5 codes reflect the legal restrictions and/or ownerships associated with each polygon of a protected project. Specifically designed to allow listing of all fee owners, easement co-holders, and reverter clause beneficiaries of a property. Same as PTYPE1 codes.

#### **PAGENCY1**

Primary Protecting AGENCY or organization responsible for protection of the parcel. All agencies or organizations involved should be indicated by PAGENCY1 or PAGENCY2-3. A public agency that owns the land is usually listed as the PAGENCY1.

# PAGENCY PAGCY\_DESC

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00,000 - 29999 Vermont Municipalities: FIPS Census Codes 01005 - 27120 [See APPENDIX B - VERMONT TOWN CODES]
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#### 30000 - 39999 Federal:

30000	US GOVERNMENT (General)
31000	US Dept. of Interior, Fish & Wildlife Service
31100	US Dept. of Interior, National Park Service
32000	US Dept. of Agriculture, Forest Service
32010	Forest Legacy Program
32100	US Dept. of Agriculture, Natural Resource Conservation Service (NRCS)
32200	US Dept. of Agriculture, Farm Services Agency (FSA)
33000	US Dept. of Defense, Army Corps of Engineers, Army National Guard
33050	US Dept. of Defense, Army National Guard

#### 40000 - 49999 State:

40000	STATE OF VERMONT (General)
41000	
42000	VT Division for Historical Preservation
43000	VT Agency of Agriculture, Foods, and Markets
44100	University of Vermont

44200	Johnson State College
44300	Castleton State College
44400	Lyndon State College
45000	VT Agency of Natural Resources (ANR)
45100	VT ANR - Dept. of Fish and Wildlife (DFW)
45200	VT ANR - Dept. of Forest Parks and Recreation (FPR)
45300	VT ANR - Dept. of Environmental Conservation (DEC)
46000	VT Agency of Transportation
47000	VT Housing and Conservation Board (VHCB)
48000	VT Dept. Buildings and General Services
49000	VT Dept. of the Military

# 50000 - 59999 Private Organizations:

50000	Private Individuals
50100	A
50105	Addison County Community Trust
50110	Appalachian Trail Conference
50120	Atlas Timberlands Partnership
50150	American Farmland Trust
50200	Brattleboro Retreat
50210	Boy Scouts of America, Inc. Green Mountain Council
50220	Big Basin Forest Trust
E0200	
50300	C
50300	Catamount Trail Association
50310	Catamount Trail Association
50310 50315	Catamount Trail Association Center for Northern Woodlands Education
50310 50315 50320	Catamount Trail Association Center for Northern Woodlands Education Central VT Community Land Trust
50310 50315 50320 50330	Catamount Trail Association Center for Northern Woodlands Education Central VT Community Land Trust Charlotte Land Trust
50310 50315 50320 50330 50340	Catamount Trail Association Center for Northern Woodlands Education Central VT Community Land Trust Charlotte Land Trust Colchester Land Trust

	50400	D
	50450	Duxbury Land Trust
	50500	Equinox Preservation Trust
	50510	East Montpelier Trails
	50600	Fort Ticonderoga Association
	50610	Farm and Wilderness Foundation
	50620	Friends of the Mad River
	50700	Green Mountain Club
	50715	Greensboro Land Trust
	50720	Green Mountain Audubon Society
	50730	Guilford Preservation Inc.
	50800	Hinesburg Land Trust
	50810	HOWL-Vermont Women's Land Trust
	50850	Habitat For Humanity
	50900	Isle La Motte Reef Preservation Trust
	51000	J
	51010	Jericho Underhill Park District
	51020	Jericho/Underhill Land Trust
	51100	K
	51110	Keeping Track, Inc.
	51200	Landmark Trust
	51210	Lake Champlain Land Trust
	51220	Lewis Creek Association
	51300	Meadowsend Timberlands Partnership
	51305	Mount Anthony Preservation Society
	51310	Merck Forest Foundation
	51320	McConnell Pond Conservation Fund
	51330	Middlebury Area Land Trust
	51340	Mad River Planning District
	51350	Mad River Watershed Conservation Partnership
	51360	Manchester Community Land Trust
5	1400	New England Forestry Foundation

51405	New England Power Corporation
51410	Northern Rivers Land Trust
51415	Northeast Wilderness Trust
51500	Otter Creek Gorge Land Trust
51600	Passumpsic Valley Land Trust
51610	Putney Mountain Association
51620	Preservation Trust of Vermont
51700	Q
51800	Richmond Land Trust
51810	Roxbury Land Conservation Association
51900	Smoky House Foundation
51905	Sterling Falls Gorge Natural Area Trust
51910	Stowe Land Trust
51920	Shelburne Farms
51930	South Burlington Land Trust
51940	South Hero Land Trust
52000	T
52010	The Nature Conservancy
52020	The Trust for Public Land
52030	Tinmouth Land Trust
52100	Upper Valley Land Trust
52200	Vermont Land Trust
52220	Vermont Institute of Natural Science (VINS)
52230	Vermont River Conservancy
52300	Whipstock Hill Preservation Society
52305	Winooski Valley Park District
52310	Windmill Hill Pinnacle Association
52320	Weston Land Conservation Trust
52400	X
52500	Y
52600	Z

#### PAGENCY2-4

Complementary field to be used after Primary Protecting AGENCY is assigned to the polygon. Codes assigned for co-holders of conservation easement or reverter organizations. Same as PAGENCY1 codes.

#### **GISACRES**

Area of polygons calculated in ArcGIS or other GIS program and converted to acres.

#### **SRCORG**

Name of organization serving as data manager/contributor for that feature.

TNC	The Nature Conservancy
USFS	US Forest Service
VANR	VT Agency of Natural Resources
VCGI	VT Center for Geographic Information
VHCB	VT Housing and Conservation Board
VLT	Vermont Land Trust

#### **SOURCE**

Sources of spatial information comprising each polygon. This field is intended to delineate the specifics of each source, facilitating the prioritization of future update efforts. Note that it is appropriate to list multiple sources.

- **1.0** orthophoto
- 2.0 1:24,000 USGS topoquad-based map
- 3.0 Other georeferenced map (explain in SOURCE\_NOTES)
- **4.0** Survey map, digitized and georeferenced to 1:5000 orthos
- **4.1** COGO entry of survey data
- **4.2** COGO entry of deed data
- 5.0 Other analog map,
- **7.2** Vermont Town Parcel Data
- **7.3** CAD Data
- 9.0 On-screen modification

- **9.1** Unknown source
- **10.0** Other Map Interpretation (explained in SRCNOTES)
- 11.0 GPS Data

#### **SRCNOTES**

Used to clarify details about source data. Used often to illuminate poor quality data (e.g. "SW corner is confusing"). SRCNOTES allows targeting data most in need of revision.

#### **STEWARD**

Data manager of feature, can be different than primary protecting agency.

#### **DATEAQRD**

Date of acquisition. This is the date that all parties signed (the closing). NOT date it was recorded at town. Closest to actual date or 0101YYYY if actual date not known.

#### **NOTES**

Notes field often used to note problem polygons, specific site names, etc. (e.g., "CONFIRM STATUS, SHELBURNE POND SITE")

#### **GAPSTATUS**

Protection Level on a scale from 1 to 4. U.S. National Gap Analysis Program definitions with examples adjusted for Vermont (National Biological Survey Gap Analysis Program Handbook, version 1).

# GAPSTATUS GAPSTATUS\_DESC

- Short Description: Permanent protection from conversion, no interference

  Long Description: An area having permanent protection from conversion of natural land cover and a mandated management plan in operation to maintain a natural state within which disturbance events (of natural type, frequency, intensity, and legacy) are allowed to proceed without interference or are mimicked through management. Examples: Wilderness Areas, National Parks, Nature Conservancy Preserves, Audubon Society Preserves, Wilderness Areas, Forest Service Research Natural Areas.
- 2 Short Description: Permanent protection from conversion, some interference allowed

**Long Description:** An area having permanent protection from conversion of natural land cover and a mandated management plan in operation to maintain a primarily natural state, but which may receive uses or management practices that degrade the quality of existing natural communities, including suppression of natural disturbance. Examples: State Parks, State Wildlife Management Areas with low intensity forest management.

- Short Description: Permanent protection from conversion, some extraction allowed Long Description: An area having permanent protection from conversion of natural land cover for the majority of the area, but subject to extractive uses of either a broad, low-intensity type (e.g., logging, OHV recreation) or localized intense type (e.g., mining). It also confers protection to federally listed endangered and threatened species throughout the area. Examples: Managed Forests, non-reserved National Forest areas, wetland easements.
- 4 Short Description: No known protection from conversion to unnatural land cover Long Description: There are no known public or private institutional mandates or legally recognized easements or deed restrictions held by the managing entity to prevent conversion of natural habitat types to anthropogenic habitat types. The area generally allows conversion to unnatural land cover throughout or management intent is unknown. See the PADUS Standards Manual for a summary of methods. Examples: Land that could be permanently developed, state school land, Department of Defense land, & agricultural easements.

## **DESIGNAT** – description of the property related to its use or function

DESIGNAT	DESIG_DESC
AA	Access Area
DAM	Dam
EASE	FWD easement property
FCS	Fish Culture Station
FLP	Forest Legacy Program
GMCC	Green Mountain Conservation Camp
MF	Municipal Forest
MISC	FWD miscellaneous property

ML Municipal Land MP Municipal Park

NAT Nature Reserve/ Preserve/ Sanctuary

NF National Forest NP National Park

NRA National Recreation Area

NS National Seashore

NWA National Wilderness Area NWR National Wildlife Refuge

OTH Other Land (use only if everything else does not apply)

PCL Private Conserved Land RCE River Corridor Easement RNA Research Natural Area

SB Stream Bank

SDNA State Designated Natural Area

SF State Forest
SL State Land
SP State Park
TL Tribal Land
UNK Unknown

WMA Wildlife Management Area

WSL Water Supply Land

#### **PUBACCESS**

Many protected land parcels are privately owned with legal conservation restrictions held by private entities. Other parcels are privately owned with public easements or public rights held. The display of protected lands data should always distinguish Public Ownership from Private Ownership to help protect the rights of private landowners. Extremely sensitive delineations should be coded as proprietary data (i.e., 4) and not distributed to the public.

PUBACCESS	PUBACC_DESC
1	Public Access
2	Privately Owned: easements allow limited public access
3	Privately Owned: no public access
4	Publicly Owned: access limited

## **PANOTES** – explanation of property access limitations

## **UPDACTION**

This field documents what kind of update (if any) has been made to the polygon.

UPDACTION	UPD_DESC
A	Added polygon
M	Moved/Adjusted polygon
S	Split polygon
U	Updated Attribute only

#### **UPDDATE**

Date when the UPDACTION was made.

#### **UPDNOTES**

Notes about the UPDACTION as needed for clarity.

#### **Data Submission Procedure**

VCGI will compile Protected Lands Geospatial Data that meets this standard on an annual basis, starting in 2016. During the first year after this first compilation, the protected lands data committee will convene 6 months after the data is published, in order to review domain table values and add/edit as needed. Thereafter, such changes will be made as part of the annual data submission and compilation effort.

VCGI will only accept data submitted by one of the following identified Protected Land Geospatial Data partners:

- The Vermont Land Trust
- The Nature Conservancy
- The VT Housing and Conservation Board
- The VT Agency of Natural Resources
- The Natural Resources Conservation Service
- The Green Mountain National Forest
- Any Regional Planning Commission in VT

Other entities can request to be included in the list of Protected Land Geospatial Data Partners by contacting VCGI. They must demonstrate that they have the technical ability to meet the data standard described above. If they do not have the technical ability necessary, an attempt will be made to pair them up with an existing Data Partner who can submit data for them.

VCGI will provide Geodatabase and Metadata templates to data partners on request.

Data partners are expected to include only those parcels for whom:

- They are the primary protecting agency, or
- They are serving as data manager

When questions arise as to which data partner is responsible for data from non-data partner sources (e.g. smaller land trusts, municipalities) data partners and VCGI will communicate with one another to resolve the question of who shall submit parcels.

# Appendix A: Domain Table Attribute Description

Table 2: Domain Table Attributes: "PROTECTEDLND_DESIGNAT"			
Field Name	Description	Text/Short	Field Size
DESIGNAT	Domain key	Text	4
DESIG_DESC	Description of the property related to its use or function	Text	80

Table 3: Domain Table Attributes: "PROTECTEDLND_GAPSTATUS"			
Field Name	Description	Text/Short	Field Size
GAPSTATUS	Protection level.	Text	2
GAPSTATUS_DESC	Description of the protection level	Text	120

Table 4: Domain Table Attributes: "PROTECTEDLND_PAGENCY"			
Field Name	Values Description	Text/Short	Field Size
PAGENCY	Domain key	Text	5
PAGCY_DESC	Primary Protecting AGENCY or organization responsible for protection of the parcel.	Text	80

Table 5: Domain Table Attributes: "PROTECTEDLND_PTYPE"			
Field Name	Values Description	Text/Short	Field Size
PTYPE	Domain key	Text	5
PTYPE_DESC	Primary Protection TYPE codes assigned based on the legal restrictions and/or ownerships associated with each polygon of a protected project.	Text	80

Table 6: Domain Table Attributes: "PROTECTEDLND_PUBACCESS"			
Field Name	Values Description	Text/Short	Field Size
PUBACCESS	Domain key	Short Integer	1
PUBACC_DESC	Allows the cartographer to distinguish Public Ownership from Private Ownership to help protect the rights of private landowners.	Text	80

Table 7: Domain Table Attributes: "PROTECTEDLND_SOURCE"			
Field Name	Description	Text/Short	Field Size
SOURCE	Domain key	Text	4
SRC_DESC	Sources of geospatial information comprising each polygon	Text	80

Table 8: Domain Table Attributes: "PROTECTEDLND_SRCORG"			
Field Name	Description	Text/Short	Field Size
SRCORG	Domain key	Text	6
SRCORG_DESC	Organization contributing features	Text	80

Table 9: Domain Table Attributes: "PROTECTEDLND_UPDACTION"				
Field Name	Description	Text/Short	Field Size	
UPDACTION	Domain key	Text	1	
UPDDATE	Type of update made to polygon (e.g.: Added, Moved, Split).	Text	40	

# **Appendix B: Vermont Town Codes**

	"001015","Bristol"	"025025","Dummerston"
"001005","Addison"	"017015","Brookfield"	"023030","Duxbury"
"019005","Albany"	"025015","Brookline"	"009040","East Haven"
"013005","Alburgh"	"019015","Brownington"	"023035","East Montpelier"
"027005","Andover"	"009025","Brunswick"	"015015","Eden"
"003005","Arlington"	"007010","Buel's Gore"	"015020","Elmore"
"025005","Athens"	"005010","Burke"	"011020","Enosburg"
"009005","Averill"	"007015","Burlington"	"007030","Essex"
"009010","Avery's Gore"	"023020","Cabot"	"021035","Fair Haven"
"011010","Bakersfield"	"023025","Calais"	"011025","Fairfax"
"027011","Baltimore"	"015010","Cambridge"	"011030","Fairfield"
"027015","Barnard"	"009030","Canaan"	"017030","Fairlee"
"005005","Barnet"	"021015","Castleton"	"023040","Fayston"
"023005","Barre City"	"027030","Cavendish"	"009045","Ferdinand"
"023010","Barre Town"	"019020","Charleston"	"001025","Ferrisburgh"
"019010","Barton"	"007020","Charlotte"	"011035","Fletcher"
"015005","Belvidere"	"017020","Chelsea"	"011040","Franklin"
"003010","Bennington"	"027035","Chester"	"011045","Georgia"
"021005","Benson"	"021020","Chittenden"	"003018","Glastenbury"
"011015","Berkshire"	"021025","Clarendon"	"019040","Glover"
"023015","Berlin"	"007025","Colchester"	"001030","Goshen"
"027020","Bethel"	"009035","Concord"	"025030","Grafton"
"009015","Bloomfield"	"017025","Corinth"	"009050","Granby"
"007005","Bolton"	"001020","Cornwall"	"013010","Grand Isle"
"017005","Bradford"	"019025","Coventry"	"001035","Granville"
"017010","Braintree"	"019030","Craftsbury"	"019045","Greensboro"
"021010","Brandon"	"021030","Danby"	"005020","Groton"
"025010","Brattleboro"	"005015","Danville"	"009055","Guildhall"
"027025","Bridgewater"	"019035","Derby"	"025035","Guilford"
"001010","Bridport"	"003015","Dorset"	"025040","Halifax"
"009020","Brighton"	"025020","Dover"	"001040","Hancock"

"005025","Hardwick" "027040","Hartford" "027045","Hartland" "011050","Highgate" "007035","Hinesburg" "019050","Holland" "021040","Hubbardton" "007040","Huntington" "015025","Hyde Park" "021045","Ira" "019055","Irasburg" "013015", "Isle La Motte" "025045","Jamaica" "019060","Jay" "007045","Jericho" "015030","Johnson" "021047","Killington" "005030","Kirby" "003020","Landgrove" "001045","Leicester" "009060","Lemington" "009065","Lewis" "001050","Lincoln" "025050","Londonderry" "019065","Lowell" "027050","Ludlow" "009070","Lunenburg" "005035","Lyndon" "009075","Maidstone" "003025","Manchester" "025055","Marlboro"

"023045","Marshfield"
"021050","Mendon"
"001055","Middlebury"
"023050","Middlesex"
"021055","Middletown Springs"
"007050","Milton"
"001060","Monkton"
"011055","Montgomery"
"023055","Montpelier"
"023060","Moretown"
"019070","Morgan"
"015035","Morristown"
"021060","Mount Holly"
"021065","Mount Tabor"
"001065","New Haven"
"005040","Newark"
"017035","Newbury"
"025060","Newfane"
"019075","Newport City"
"019080","Newport Town"
"013020","North Hero"
"023065","Northfield"
"009080","Norton"
"027055","Norwich"
"017040","Orange"
"001070","Orwell"
"001075","Panton"
"021070","Pawlet"
"005045","Peacham"
"003030","Peru"
"021075","Pittsfield"
"021080","Pittsford"

"023070","Plainfield"
"027060","Plymouth"
"027065","Pomfret"
"021085","Poultney"
"003035","Pownal"
"021090","Proctor"
"025065","Putney"
"017045","Randolph"
"027070","Reading"
"003040","Readsboro"
"011060","Richford"
"007055","Richmond"
"001080","Ripton"
"027075","Rochester" "025070","Rockingham"
"025070","Rockingham"
"023075","Roxbury"
"027080","Royalton"
"003045","Rupert" "021095","Rutland City"
"021095","Rutland City"
"021100","Rutland Town"
"005050","Ryegate"
"001085","Salisbury" "003050","Sandgate"
"003050","Sandgate"
"003055","Searsburg"
"003060","Shaftsbury"
"027085","Sharon"
"005060","Sheffield"
"007065","Shelburne"
"011075","Sheldon"
"001090","Shoreham"
"021110","Shrewsbury"
"025073","Somerset"

"007070","South Burlington"
"013025","South Hero"
"027090","Springfield"
"011065","St. Albans City"
"011070","St. Albans Town"
"007060","St. George" "005055","St. Johnsbury"
"005055","St. Johnsbury"
"003065","Stamford"
"005065","Stannard"
"001095","Starksboro"
"027095","Stockbridge"
"015040","Stowe"
"017050","Strafford"
"025075","Stratton"
"021115", "Sudbury"
"003070","Sunderland"
"005070","Sutton"
"011080","Swanton" "017055","Thetford"
"017055","Thetford"
"021120","Tinmouth"
"017060","Topsham"
"025080","Townshend"
"019085","Troy"
"017065","Tunbridge"
"007075","Underhill"
"001100","Vergennes" "025085","Vernon"
"025085","Vernon"
"017070","Vershire"
"009085","Victory"
"023080","Waitsfield"
"005075","Walden"
"021125","Wallingford"

"001105","Waltham" "025090","Wardsboro" "009090","Warner's Grant" "023085","Warren" "009095","Warren Gore" "017075","Washington" "023090","Waterbury" "005080","Waterford" "015045","Waterville" "027100","Weathersfield" "021130","Wells" "017080","West Fairlee" "021135","West Haven" "021140","West Rutland" "027110","West Windsor" "019090","Westfield" "007080","Westford" "025095","Westminster" "019095","Westmore" "027105","Weston" "001110","Weybridge" "005085","Wheelock" "001115","Whiting" "025100","Whitingham" "017085","Williamstown" "007085", "Williston" "025105","Wilmington" "025110","Windham" "027115","Windsor" "003075","Winhall" "007090","Winooski" "015050","Wolcott"

"023095","Woodbury"
"003080","Woodford"
"027120","Woodstock"
"023100","Worcester"